

# Speech and Language Disorders

**Definition:** Speech and language disorders refer to problems in communication and related area such as oral motor function. These delays and disorders range from simple sound substitutions to the inability to understand or use language.

**Incidence:** It is estimated that communication disorders, (including speech, language, and hearing disorders) affect one in every 10 people in the United States.

- Activities

- 1.) Elementary School Age

- a.) "Cookie"
- b.) Communication Boards

- 2.) Middle School Age

- a.) Expressive Eyes
- b.) It's Hard to Talk

- 3.) High School Age

- a.) Assistive Technology Display
- b.) Communication Boards with Symbols

- Fact Sheet on Speech and Language Disorders

- Boardmaker Information

- Bibliography of Children's Literature & Audio Visual Materials

- Community Resource Numbers

***\*\*Guest Speaker Presentation Idea:***  
Get Baltimore County contact

***\*\*Activity Idea:***  
Contact the Resource Center nearest you about using the Boardmaker program for the Communication Board activity (see the Boardmaker information sheet for phone numbers)

## ELEMENTARY SCHOOL

### *"Cookie"*

*Purpose:* To increase children's awareness of signs used by children who are not able to communicate verbally.

*Materials:* Cookie by Linda Kneeland , juice, cups, cookies

Order from: Jason & Nordic Publishers  
P.O. Box 441  
Hollidaysburg, PA 16648  
814-696-2920

Borrow from: The Resource Center for Families and Schools  
410-887-5443

### *Activity:*

Read the story Cookie to your class. This story is appropriate for kindergarten age and first grade students. You may want to solicit older students to read the story to your class.

Afterwards have the children respond to the following questions:

- Have they ever had trouble communicating or telling someone what they wanted? How did it make them feel?
- Do they know anyone who has trouble communicating?
- How can we help someone who is having trouble communicating? (Have the person show you what he or she means, listen carefully without rushing the person who is having difficulty, learn the signs that person uses to communicate.)
- Have the children make the sign for cookies and juice before enjoying a snack of these items.

## ELEMENTARY SCHOOL

### *Communication Boards*

*Purpose:* Students will learn about alternative ways of communicating used by people who have severe language disabilities.

*Materials:* Paper, Clip Art or Simple Drawings, Pens

*Activity:*

Students will construct a simple communication board and use them to convey information by pointing to pictures/symbols on the board during a particular class -- art, language arts, math, social studies, or during their lunch period, etc. Provide students with a blank communication board template (see sample with pictures attached) with 30 blank boxes. Have students work in small groups or as a class to generate a list of important words or concepts that they think would need to be on the board. Have students agree on symbols or clip art pictures that they will use to convey the words on their list. For example a smiley face or frown to depict happy and sad. Have students use the communication boards the next day during the period of time you have chosen from above. Allow verbal responses only for the last 10 minutes of the period. Ask the students to discuss what was most frustrating to them in communicating this way. How would this affect their learning? How could they be helpful to someone who uses a communication board?



# Communication Board



The above communication board was created using the computer program

**Boardmaker**

See page for further information.

## MIDDLE SCHOOL

### *Expressive Eyes*

*Purpose:* To increase understanding and awareness of how people who cannot communicate verbally can indicate preferences through their eyes.

*Materials:* Three objects, paper and pens for communication boards

*Activity:*

Many people with multiple disabilities do not have speech and must use their eyes to communicate. In some cultures, people wear masks over the lower part of their faces with only their eyes visible. In both of these cases, people learn to use their eyes expressively.

- A. Have the students practice different ways to move their eyes to express feelings, i.e., happiness, sadness, boredom, etc. using primarily their eyes?
- B. Put three objects in a row and have students indicate their choice using only their eyes. This is the basis for communication boards. Have pairs of children make a board with answers (Yes, No, Maybe); (I like it, I hate it, It's so-so). Then have one child ask questions of another with the other answering only by his/her eyes and the communication board.



## MIDDLE SCHOOL

### *It's Hard to Talk*

*Purpose:* Increase awareness and sensitivity towards students who have difficulty communicating and that having difficulty speaking does not mean you don't have anything to say.

*Materials:* Paper with poems, rhymes, sentences written on them.

*Activity:*

Some people with cerebral palsy can't talk, not because they aren't smart, but because brain damage has affected their ability to control the muscles in their faces. This is only one of many causes of speech difficulties. In ancient times, a famous Greek philosopher named Socrates filled his mouth with pebbles to practice speaking to overcome a speech difficulty.

Give each child a card containing a poem, a rhyme, or a sentence. Ask each child to read the card to the rest of the class, but without moving lips or tongue.

Discussion: How Would it be for someone to have something to say but no way to physically form the words? How could someone with this problem Communicate? How did you feel when you had something to say but couldn't get the words out? Often children who have difficulty communicating become frustrated and angry because they can't communicate what they are feeling or thinking.

Barnes, Ellen, Carol Berrigan, and Douglas Biklen. What's the Difference: Teaching Positive Attitudes Toward People with Disabilities. Syracuse, NY: Human Policy Press, 1978.

## HIGH SCHOOL

### *Assistive Technology Display*

*Purpose:* To help students appreciate the rights of individuals to express their thoughts, choices, and preferences regardless of disability.

*Materials:* Pencil, Paper, List of Questions

*Activity:*

Invite professionals from one of the organizations listed in the resource directory to provide a display of different technology available today to augment communication for individuals who have difficulty with verbal communication. In observing the displayed items, have students answer the following questions:

Is the device portable?

What skills are required to use the device?

Does the device include a synthesized voice?

How much does it cost for the device to be purchased?

## HIGH SCHOOL

### *Communication Boards with Symbols*

*Purpose:* To help students understand that people, regardless of disability, have the right and ability to express themselves.

*Materials:* Blank communication board forms, pencils, sample communication boards if available from the Speech Therapist in your school or by contacting Robin Bosley, Speech Pathologist at the Department of Special Education at 410-887-4225 ext. 348.

#### *Activity:*

Show the students several examples of communication boards and demonstrate how they are used to convey information. Explain that people who have cerebral palsy and other disorders are often not able to use speech, although they may be able to hear and think normally. One way for these individuals to communicate is to point to letters and symbols on a board.

To create the communication boards, the whole class will have to agree on a set of symbols so that the members of the class can understand each other when they use the communication boards. There are 105 squares on the master sheet. Ask the students for suggestions of important words or concepts that they think need to be on the board. Next to the words or ideas, identify symbols to represent these items. Students may want to practice symbols on scratch paper. Before a symbol may be added to the board, a majority of students have to agree to accept it. A few suggestions for symbols include using a smile for "happy"; a frown for "sad"; and a faucet for "water." Print the word above or below the symbol.

Suggest that the first 36 squares be used for the letters of the alphabet and the numbers zero through nine. When all of the communication boards are finished, explain that there will be no verbal communication used in the classroom the next day. All students and the teacher will be required to point to symbols or letters in order to communicate. If a student wishes to write a note, he/she must use symbols only. Alphabet letters may not be used in the notes.

Remind students to complete their homework assignments as they are leaving class (not verbally!) which you have written on the board as follows:

What was the most frustrating experience for you in using the communication board?  
How would a communication disability affect the learning of a student?

Reference: People Like Us. Disability Awareness Curriculum For Montana's Students, Edited by : Katharine A. Kelker Parents, Let's Unite For Kids, Billings, Montana



## Communication Board

[illegible]





## SPEECH AND LANGUAGE DISORDERS

### ◆ Definition ◆

Speech and language disorders refer to problems in communication and related areas such as oral motor function. These delays and disorders range from simple sound substitutions to the inability to understand or use language or use the oral-motor mechanism for functional speech and feeding. Some causes of speech and language disorders include hearing loss, neurological disorders, brain injury, mental retardation, drug abuse, physical impairments such as cleft lip or palate, and vocal abuse or misuse. Frequently, however, the cause is unknown.

### ◆ Incidence ◆

More than one million of the students served in the public schools' special education programs in the 1996-97 school year were categorized as having a speech or language impairment. This estimate does not include children who have speech/language problems secondary to other conditions such as deafness. Language disorders may be related to other disabilities such as mental retardation, autism, or cerebral palsy. It is estimated that communication disorders (including speech, language, and hearing disorders) affect one of every 10 people in the United States.

### ◆ Characteristics ◆

A child's communication is considered delayed when the child is noticeably behind his or her peers in the acquisition of speech and/or language skills. Sometimes a child will have greater receptive (understanding) than expressive (speaking) language skills, but this is not always the case.

Speech disorders refer to difficulties producing speech sounds or problems with voice quality. They might be characterized by an interruption in the flow or rhythm of speech, such as stuttering, which is called dysfluency. Speech disorders may be problems with the way sounds are formed, called articulation or phonological disorders, or they may be difficulties with the pitch, volume, or quality of the voice. There may be a combination of several problems. People with speech disorders have trouble using some speech sounds, which can also be a symptom of a delay. They may say "see" when they mean "ski" or they may have trouble using other sounds like "l" or "r." Listeners may have

trouble understanding what someone with a speech disorder is trying to say. People with voice disorders may have trouble with the way their voices sound.

A language disorder is an impairment in the ability to understand and/or use words in context, both verbally and nonverbally. Some characteristics of language disorders include improper use of words and their meanings, inability to express ideas, inappropriate grammatical patterns, reduced vocabulary, and inability to follow directions. One or a combination of these characteristics may occur in children who are affected by language learning disabilities, or developmental language delay. Children may hear or see a word but not be able to understand its meaning. They may have trouble getting others to understand what they are trying to communicate.

### ◆ Educational Implications ◆

Because all communication disorders carry the potential to isolate individuals from their social and educational surroundings, it is essential to find appropriate timely intervention. While many speech and language patterns can be called "baby talk" and are part of a young child's normal development, they can become problems if they are not outgrown as expected. In this way an initial delay in speech and language or an initial speech pattern can become a disorder which can cause difficulties in learning. Because of the way the brain develops, it is easier to learn language and communication skills before the age of 5. When children have muscular disorders, hearing problems or developmental delays, their acquisition of speech, language, and related skills is often affected.

Speech-language pathologists assist children who have communication disorders in various ways. They provide individual therapy for the child; consult with the child's teacher about the most effective ways to facilitate the child's communication in the class setting; and work closely with the family to develop goals and techniques for effective therapy in class and at home. Technology can help children whose physical conditions make communication difficult.

The use of electronic communication systems allow non-speaking people and people with severe physical disabilities to engage in the give and take of shared thought.



# SPEECH AND LANGUAGE DISORDERS

Vocabulary and concept growth continues during the years children are in school. Reading and writing are taught and, as students get older, the understanding and use of language becomes more complex. Communication skills are at the heart of the education experience. Speech and/or language therapy may continue throughout a student's school year either in the form of direct therapy or on a consultant basis. The speech-language pathologist may assist vocational teachers and counselors in establishing communication goals related to the work experiences of students and suggest strategies that are effective for the important transition from school to employment and adult life.

Communication has many components. All serve to increase the way people learn about the world around them, utilize knowledge and skills, and interact with colleagues, family, and friends.

## ◆ Resources ◆

Berkowitz, S. (1994). *The cleft palate story: A primer for parents of children with cleft lip and palate*. Chicago, IL: Quintessence. (Telephone: 1-800-621-0387.)

Beukelman, D.R., & Mirenda, P. (1992). *Augmentative and alternative communication: Management of severe communication disorders in children and adults*. Baltimore, MD: Paul H. Brookes. (Telephone: 1-800-638-3775.)

Eisensohn, J. (1997). *Is my child's speech normal?* (2nd ed.). Austin TX: Pro-Ed. (Telephone: 1-800-897-3202.)

Hamaguchi, P.M. (1995). *Childhood speech, language, & listening problems: What every parent should know*. New York, NY: John Wiley & Sons, Inc. (Telephone: 1-800-225-5945)

## ◆ Organizations ◆

Alliance for Technology Access  
2175 E. Francisco Blvd., Suite L  
San Rafael, CA 94901  
(415) 455-4575; (800) 455-7970  
E-mail: [atainfo@ataaccess.org](mailto:atainfo@ataaccess.org)  
URL: <http://www.ataaccess.org>

Cleft Palate Foundation  
1829 E. Franklin St., Suite 1022  
Chapel Hill, NC 27514  
(919) 933-9044; 1-800-242-5338  
E-mail: [cleftline@aol.com](mailto:cleftline@aol.com)  
URL: <http://www.cleft.com>

American Speech-Language-Hearing Association (ASHA)  
10801 Rockville Pike  
Rockville, MD 20852  
(301) 897-5700 (V/TTY); 1-800-638-8255  
E-Mail: [actioncenter@asha.org](mailto:actioncenter@asha.org)  
URL: <http://www.asha.org>

Learning Disabilities Association of America (LDA)  
4156 Library Road  
Pittsburgh, PA 15234  
(412) 341-1515; (412) 341-8077; (888) 300-6710  
E-mail: [ldanatl@usaor.net](mailto:ldanatl@usaor.net)  
URL: <http://www.ldanatl.org>

Easter Seals—National Office  
230 West Monroe Street, Suite 1800  
Chicago, IL 60606-4802  
(312) 726-6200; (312) 726-4258 (TTY)  
1-800-221-6827; (312) 726-6200  
(312) 726-4258 (TTY)  
E-Mail: [nessinfo@seals.com](mailto:nessinfo@seals.com)  
URL: <http://www.easter-seals.org>

Scottish Rite Foundation  
Southern Jurisdiction, U.S.A., Inc.  
1733 Sixteenth Street, N.W.  
Washington, DC 20009-3199  
(202) 232-3579

Trace Research and Development Center  
University of Wisconsin - Madison  
S-151 Waisman Center  
Madison, WI 53705-2280  
(608) 262-6966; (608) 263-5408 (TTY)  
E-Mail: [info@trace.wisc.edu](mailto:info@trace.wisc.edu)  
URL: <http://trace.wisc.edu/>

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# Boardmaker

## What is Boardmaker?

Boardmaker is a computer library program of 3,000 bit-mapped clip art (black & white and color) which includes the Mayer-Johnson Picture Communication Symbols (PCS).

Boardmaker is also a drawing program which allows you to quickly make communication boards and device overlays.

## How do you use Boardmaker?

First, decide on the list of words you wish to include on your communication board and how you want them grouped or arranged. Then you "search" for them in the program. You select the clip art which best represents your word and "paste" it into a pre-made grid or one you designed yourself. The clip art can show the picture alone or with the word (above or below the picture) in nine other languages in addition to English. If you can't find exactly what you're looking for, existing clip art can be altered and added to the software library to expand the available possibilities.

Below is a list of the categories which are available using the program.

Social	Leisure/Holiday/Religion
People	Cleaning/Kitchen/Home
Verbs	Places/Workshop
Descriptive	Office/School/Computer
Miscellaneous	Miscellaneous
Food	Animals/Gardening/ Containers/Transportation
Clothes/Grooming/Body/Health	

"Boardmaker" can be used at each of the following Resource Centers.  
For further information about the use of this program  
please contact the Resource Center nearest you.

Southeast	Battle Monument.....	410-887-7147
Northwest	Campfield Early Childhood Center.....	410-887-1269
Northeast	Rosedale.....	410-887-0321
Central	White Oak.....	410-887-5443

## Bibliography

### Speech and Language Impairments

Kelley, Sally. *Trouble With Explosives*. Bradbury Press, 1976.

Lee, Mildred. *The Skating Rink*. Houghton Mifflin, 1969.

White, E.B. *The Trumpet of the Swan*. Harper & Row, Harper Junior, 1970.

## **RESOURCE ORGANIZATIONS**

### **State/National Resource Organizations**

Linda J. Burkhart  
(Simplified Technology for  
Individuals With Disabilities)  
6201 Candle Court  
Eldersburg, MD 21784  
410-795-4561

Center For Technology in Education  
181 Northbend Road  
Baltimore, MD 21229  
410-646-3000

Maryland Augmentative  
Communication Association (MACA)  
P.O. Box 1472  
Severna Park, MD 21146

Maryland Technology Assistance  
Program  
2301 Argonne Drive  
Baltimore, MD 21218  
800-TECH TAP

LINC (Learning Independence  
Through Computer, Inc.)  
28 East Ostend Street, Suite 140  
Baltimore, MD 21230  
410-659-LINC

Augmentative Communication  
Consultants  
280-B Moon Clinton Road  
Moon Township, PA 15108  
800-982-2248

American Speech-Language Hearing  
Association (ASHA)  
10801 Rockville Pike  
Rockville, MD 20852  
800-638-8255

Abledata  
800-227-0216

Cleft Palate Association  
800-24-CLEFT

### **Local Organizations**

Hearing & Speech Agency of  
Metropolitan Baltimore  
410-243-3800  
TTY: 410-243-1275

Loyola College Speech & Language Literacy Center  
410-785-1044  
TTY: 410-617-2144